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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,978	08/24/2001	Alan N. Willson JR.	G&C 31006.2-US-U1	2152

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EXAMINER

NGO, CHUONG D

ART UNIT PAPER NUMBER

2193

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/938,978

Applicant(s)

WILLSON ET AL.

Examiner

Chuong D. Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 10, 14-22, 25, 26 and 29-48 is/are rejected.
- 7) ☒ Claim(s) 6-8, 11-13, 23, 24, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-5,9,10,14-22,25,26, and 29-48 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Smith, Jr. (3,482,085).

Smith Jr. discloses in figure 1 an adder for adding a first input (E), a second input (P), and a carry input (F) to produce an adder output (T) and a carry out (G). The adder also has a bypass input (K) for controlling the logic of the adder to hold the first input (at 15), the second input (at 18) and the carry input (at 23), and to generate an adder output and carry without computing as claimed (suppressing the arithmetic operations of the adder, see abstract and col. 5, lines 40-71). The element (S, see figure 2d) can be seen as a transmission gate or latch with (a) as a logical input, (b) as a control or clock input, and (c) as an output.

2. Claims 6-8,11-13,23,24,27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Applicant's arguments filed 01/24/2005 have been fully considered but they are not persuasive.

First, it is respectfully submitted that the recitation "without computing a new adder output" does not require the adder not to compute a carry output. Therefore, the bypass one of the arguments to the output of the adder as the sum without computing it in Smith clearly reads on this limitation.

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Further, it is respectfully submitted that the recitation "hold" when broadly interpreted in light of the specification is to stop or to prevent a signal from transmitting through something. Therefore, the preventing the first input E from transmitting through element 15, the suppressing the second input P to zero by element 17 to prevent it passing through element 18, and the preventing the carry F from transmitting through element 23 in adder logic circuit in figure 1 of Smith according to the bypass signal K is clearly read on the limitation.

In addition, the claims do not recite a limitation that requires the claimed "transmission gate" providing a high impedance at the output when enabled. Therefore, the element S in Smith that clearly disconnects its input (a) from its output (c) when enabled by a control signal (b), or connects its input (a) to its output (c) when disabled by a control signal (b), can be seen as a transmission gate as claimed.

Therefore, It is respectfully submitted that the rejection as set forth above is proper.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chuong D Ngo  
Primary Examiner  
Art Unit 2193

05/09/2005